

**661—210.3 (100) General requirements.**

**210.3(1)** Approved single station smoke detectors shall be acceptable in all areas covered by this chapter, unless other fire warning equipment or materials are required by any provision of 661—Chapter 201, 202, or 205 or if a commercial grade smoke detection system has been installed. Any single station smoke detector installed on or after April 1, 2010, in compliance with this subrule, including a replacement of an existing detector, shall be a dual sensor smoke detector. If sufficient dual sensor smoke detectors have been installed to comply with the requirements of this chapter, additional smoke detectors which may be other than dual sensor detectors may be installed.

**210.3(2)** Any installation of wiring and equipment shall comply with NFPA 70, National Electrical Code, 2008 edition, and requirements established by the manufacturer of the equipment serviced by the wiring.

**210.3(3)** All devices, combinations of devices, and equipment to be installed in conformity with this chapter shall be approved and used for the purposes for which they are intended. Any smoke detector installed on or after April 1, 2010, in compliance with this chapter, including a replacement of an existing detector, shall be a dual sensor smoke detector. If sufficient dual sensor smoke detectors have been installed to comply with the requirements of this chapter, additional smoke detectors which may be other than dual sensor detectors may be installed.

**210.3(4)** A combination system, such as a household fire warning system whose components may be used in whole or in part, in common with a nonfire emergency signaling system, such as a burglar alarm system or an intercom system, shall not be permitted or approved, except for one- or two-family dwellings.

**210.3(5)** All power supplies shall be sufficient to operate the smoke detector alarm for at least four continuous minutes.

**210.3(6)** Power source.

*a.* In new buildings and additions constructed after July 1, 1991, required smoke detectors shall receive their primary power from the building wiring when such wiring is served from a commercial source. Wiring shall be permanent and without a disconnecting switch other than that required for overcurrent protection. Smoke detectors may be solely battery operated when installed in existing buildings, or in buildings without commercial power, or in buildings which undergo alterations, repairs or additions subject to subrule 210.3(2).

*b.* New and replacement smoke detectors installed after May 1, 1993, which receive their primary power from the building wiring shall be equipped with a battery backup.

**210.3(7)** The failure of any nonreliable or short-life component which renders the detector inoperative shall be readily apparent to the occupant of the sleeping unit without the need for a test. Each smoke detector shall detect abnormal quantities of smoke that may occur and shall properly operate in the normal environmental condition.

**210.3(8)** Equipment shall be installed in accordance with the manufacturer's recommendations.

**210.3(9)** Installed fire warning equipment shall be mounted so as to be supported independently of its attachment to wires.

**210.3(10)** All apparatus shall be restored to normal immediately after each alarm or test.

**210.3(11)** Smoke detectors shall be located as follows:

*a.* On the ceiling or wall outside of each separate sleeping area in the immediate vicinity of bedrooms.

*b.* In each room used for sleeping purposes.

*c.* In each story within a dwelling unit, including basements but not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.